

INTRODUCTION

Marine Corps Base Camp Smedley D. Butler (MCB Butler) is a very unique and complex overseas installation. Our numerous camps are located throughout the islands of Okinawa and Ie Shima; we have a training camp at the base of Mt. Fuji in mainland Japan; and we control the only remaining Jungle Warfare Training Center (JWTC) left in DoD. Over 3,000 species, of which approximately 260 are rare, threatened or endangered, inhabit our installations, and we have archaeological sites that are over 6,000 years old. The Commanding General and the Base staff are committed to protecting and preserving the land entrusted to us by our Japanese hosts. With 35 dedicated, highly-trained professionals, MCB Butler achieved environmental excellence with innovative and progressive ideas. MCB Butler is a leader in compliance, pollution prevention, and conservation. We solve problems through a team approach with various U. S. and Japanese agencies, organizations, and institutions.

LOCATION



Figure 1. Location of MCB Butler

MCB Butler is the base support command for US Marine Corps ground forces on Okinawa and at Camp Fuji on Honshu Island, Japan (Figure 1). MCB Butler is composed of several installations of varying sizes and missions, covering approximately 83,000 acres with over 6,000 facilities, having a replacement value of nearly \$6 billion dollars. Approximately 16,700 active duty personnel and 3,500 U.S. and Japanese civilians live, work and train at MCB Butler. Headquarters for MCB Butler is located at Camp Foster. The majority of facilities that compose MCB Butler are located on Okinawa (Figure 2) and consist of: Camps Gonsalves, Schwab, Hansen, Courtney, McTureous, Lester, Foster, and Kinser.

MCB Butler also includes the Jungle Warfare Training Center (formerly the Northern Training Area), Ie Jima Auxiliary Airfield, Henoko Ordnance Ammunition Depot, the Central Training Area, Gimbaru Training Area, Kin Red Beach Training Area, Kin Blue Beach Training Area, Higashionna (Kadena) Ammunition Storage Point II, and Yomitan Auxiliary Airfield.

Marine Corps Air Station (MCAS) Futenma, also located on Okinawa, has an operational chain of command separate from MCB Camp Butler. However, support services such as environmental compliance, facilities, engineering and maintenance, fire department, and post office are operated by Camp Butler.

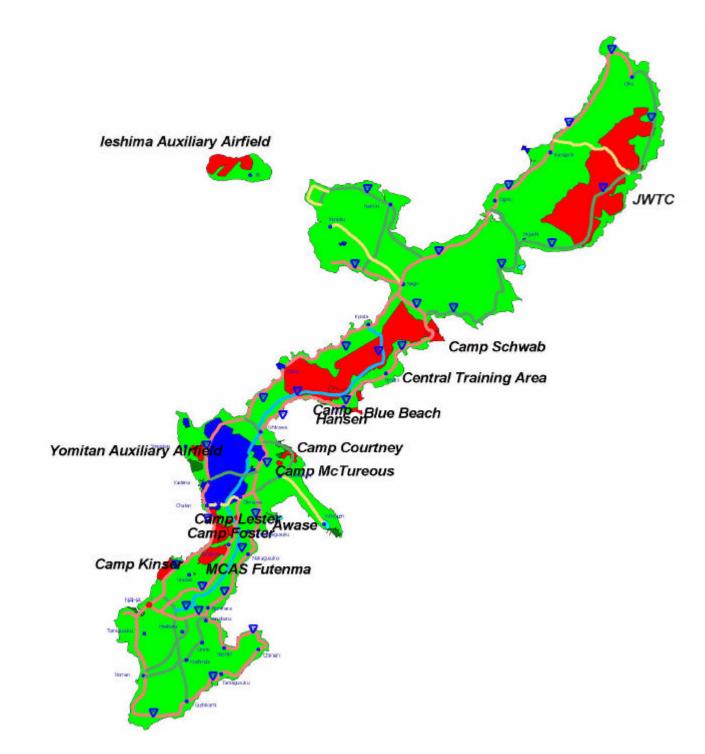


Figure 2. Map of Okinawa

MISSION

The mission of Camp Butler is to provide training facilities, limited logistic support, and limited administrative support for Fleet Marine Force (FMF) units located on Okinawa and Camp Fuji. The III Marine Expeditionary Force (III MEF) is the major tenant of MCB Butler. III MEF's major components consist of the 3rd Marine Division, the ground combat component; 1st Marine Air Wing, the air combat component; 3rd Force Service Support Group, the logistics support component; and the 31st Marine Expeditionary Unit. III MEF and other deployed US forces support our national



security strategy by providing personnel that could be deployed if a crisis arises.

The Environmental Branch has an excellent reputation with the operating forces, and strives to balance training needs with environmental protection. With the closing of the Army's JWTC in Panama, this leaves our JWTC as the only remaining within DoD.

Figure 3. AAVs Train at Camp Schwab

BACKGROUND

The MCB Butler Environmental Branch was formed in 1995. Prior to 1995, environmental concerns at MCB Butler mainly focused on Hazardous Waste (HW) disposal and management. In the five years since the Branch was established, the 35 U. S. military, Japanese and U. S. civilians who work in the Environmental Branch have made enormous improvements in both supporting the operating forces and protecting the environment of Okinawa.

Environmental stewardship, compliance, and support of the operating forces are now the focus of the Branch. Each year, awareness of the environment increases within the local community and Japanese Government. The Japanese Environmental Agency (JEA) will soon be elevated to the Ministry level, which will place environmental issues on a higher political level within Japan. The local prefecture government on Okinawa is also continuing to mature with regards to environmental compliance and protection issues. Thus in reality, the MCB Butler Environmental Branch responds to environmental regulations promulgated by DoD, the Government of Japan, the Okinawan Prefecture Government, and by U. S. Environmental Protection Agency (EPA) and Department of Interior (DOI). The need to follow such a diverse set of environmental requirements and support mission readiness is an enormous challenge.

The MCB Environmental Branch has worked extremely hard on a team approach to solve a multitude of environmental challenges and requirements. This "TEAM" not only consists of Marine Corps employees, but employees within other U. S. Federal Agencies, along with Japanese and U. S. Universities. The Branch has been very successful is forming alliances and working agreements with other U. S. and Japanese Agencies. In the last two years, the Environmental Branch developed Memorandums of Understanding (MOUs) with the U. S. Forest Service and the EPA. The Branch has continued to work and train with the U. S. Coast Guard, and we are investigating the possibility of interagency work with the U. S. Geological Survey and Environment Canada. We have worked closely with the Universities of Hawaii and Ryukyu on our biological inventory, and with the University of Yamaguchi on erosion control technologies and projects.



The Branch has also set a goal to obtain ISO 14000 certification in the future. ISO 14000 is the international standard for environmental management. To reach this goal we have teamed up with the Federal Activities Office of EPA Region IX. EPA Region IX is viewing this team as an excellent training evolution for their personnel who work ISO 14000 issues. MCB Butler is the only overseas DoD installation attempting to achieve certification, which will greatly increase the visibility and credibility of our environmental programs with the local community and government.

Figure 4. News Paper Article on EPA Visit

In August 2000, EPA and U.S. Forest Service personnel performed our Environmental Compliance Evaluation (ECE) Self Audit (Figure 4). This is the first time that either agency has assisted an overseas DoD installation on an environmental inspection, and gave us the opportunity to have outside regulators evaluate our programs. In doing so, we showed our local hosts our resolve in implementing the laws, rules, and regulations applicable in the protection of the land entrusted to us, and earned us credibility and trust from our counterparts in the Japanese Government.

PROGRAM SUMMARY/ACCOMPLISHMENTS

For a Branch that has only been in existence for 5 years the number of accomplishments in a wide spectrum of environmental programs is impressive. All these accomplishments were completed in a

cost effective and timely manner.

EROSION CONTROL. We have one of the best erosion control programs within DoD; both the Army Environmental Center and U. S. Forest Service would attest to this statement. This is another area where we have taken a team approach to a complex problem. Through our MOU with the U. S. Forest Service and our good working relationships with the Okinawa Prefecture Red Soil Institute and Yamaguchi University, we are implementing a comprehensive erosion control program to prevent red soil from reaching the ocean where it can impact the coral reefs surrounding Okinawa. A comprehensive erosion program is crucial if we are going to sustain our training areas and protect the coral reefs. We have an active aerial hydro-seeding program and have seeded over 8 hectares (Figure 5)



Figure 5. Aerial Hydro-seeding

in our impact areas at a cost of \$420,000. This program was done as a demonstration project to show the Japanese government that this was a viable solution for red soil erosion control. Now the Japanese government is actively using this technology for erosion control. We have funded over \$1,000,000 for three range de-mining and reconstruction projects that incorporate new technologies in bullet entrapment and soil erosion control at some of our active known distance ranges. These

projects will not only de-lead the ranges, but will also provide red soil erosion preventive measures such as weirs, silt screens and detention ponds. Erosion of the berms will also be minimized by the use of bullet catchment or deceleration devices that prevent the bullets from impacting the bare soil.

CAMP SUPPORT. Even though the Branch is less than five years old we completely revamped the way we manage and track Hazardous Waste (HW). Under the implementation of the Centralized Hazardous Waste Management Program (CHWMP), all MCB Butler HW and spill response operations on Okinawa were consolidated at Camp Kinser. An Environmental Support Team (EST) was developed and given the responsibilities for executing the CHWMP. The EST provides HW collection services, provides

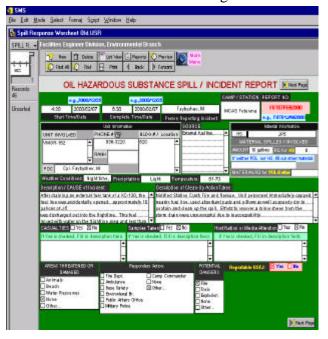


Figure 6. HW/Spill Tracking Program

the units with properly marked containers for each HW stream, maintains the unit's HW waste log, and prepares all disposal turn-in documents and associated paperwork. In doing so, they have eliminated the unit's requirement to establish a permitted HW Accumulation Point, and greatly reduced the amount of time the unit needs to spend on HW management, thus freeing them up to concentrate on their primary mission – training for combat! This reduces cost by consolidating similar waste streams on the installation, reducing the total number of containers, and reducing the associated labor. We also developed and implemented our own HW data management system that tracks HW and spill response activities (Figure 6).

POLLUTION PREVENTION. Pollution prevention is one of the cornerstones of our environmental program on Okinawa. MCB Butler has taken the lead on a Defense Logistics Agency (DLA) Hazardous Material (HM) Control Program initiative to minimize and track HM/HW. This new system jointly developed by DLA and Radian International called the Joint Environmental Material Management System (JEMMS) will be field tested in Okinawa. Our staff was instrumental in convincing DLA that they should field test this "purple" system in Okinawa. JEMMS is a true life-cycle management system for HM/HW. Along with a new and innovative HM/HW management system, we continually seek to integrate pollution prevention ethics in all activities through HM/HW minimization, materials substitutions and resources recovery and recycling. We have greatly reduced the number of batteries, antifreeze, paint, and oily rags that we turn in as HW. We have purchased items such as aerosol can puncturing units, oil and fuel filter crushers, photographic silver and solvent recovery systems, and lead acid battery de-sulfation chargers for our maintenance units. Numerous actions have been taken to reduce the use of ozonedepleting compounds. On Solid Waste (SW) we have worked closely with our contractors and the Marine Corps Community Services recycling personnel to reduce SW generation. The DoD Measures of Merits (MOMs) goal for 2005 is reduction of SW by 40%; in Fiscal Year 2000 we have already achieved a reduction of 34%.

CULTURAL RESOURCES. We have an active Cultural Resources Management Program encompassing all Marine Corps facilities on Okinawa. This program is staffed by dedicated professionals with backgrounds in cultural asset protection. We currently have the only DoD employed professional archeologist in the Far East. The staff has gained the professional confidence of the local archaeological community and has been certified by the Okinawa Prefectual Government to monitor and approve all archaeological work conducted within MCB Butler. We are the only DoD base in Japan that is recognized by Government of Japan officials to approve archaeological clearances. This is an accomplishment we are very proud of!



Figure 7. Kiyuna Gaa Springs

The MCB Butler conducts a cultural assets survey before beginning any construction project whether funded under the Japan Facilities Improvement Program or by the U. S. Government. In all cases, the survey team closely consults with the municipal archaeologist responsible for the area in question. If necessary, the MCB Butler relocates a project upon finding previously unknown cultural assets. In May 2000, we completed and implemented an Integrated Cultural Resources Management Plan that outlines our management strategy for cultural assets (Figure 7), and defines all requirements for cultural resources site approval prior to the beginning of any development projects. We have completed cultural resources inventories for approximately 80% of all properties currently managed under MCB Butler, and are integrating the collected data into an island wide Geographic Information System. We are also working with the Ginowan City in Okinawa to jointly develop GIS archaeological data. This will greatly enhance future planning needs.

All Camps educate their people on the significance of tomb areas and other cultural assets. Such areas are strictly "off-limits." Tours with local communities are conducted on a regular basis to promote awareness of the many significant traditional Okinawan cultural assets that are located on the camps, and to illustrate how the Marine Corps is working to preserve these sites.

NATURAL RESOURCES. Marine Corps installations on Okinawa are "islands" of bio-diversity surrounded by a sea of urban and agricultural development. Our installations support nearly 3,000 species, of which approximately 260 are rare, threatened or endangered as listed in the Red Data

Book of Japan. We also have 200 species that are new records, endemic to Yanbaru or to Okinawa, and are being identified by the local University. Marine Corps installations on Okinawa are considered one of the richest areas as far as endemicity and bio-diversity in all of Japan. We completed our natural resources inventory in December 2000. The data obtained in this inventory will assist MCB Butler to support land use and training issues in the future. Four years ago the Environmental Branch had no professionally trained biologist on staff, we now have six degreed biologists on staff. Our staff continues to work closely with experts from the Universities of Ryukyu and Hawaii to further define and characterize the biological diversity of our installations. In May of 2000, the Commanding General, MCB Butler, approved the comprehensive Integrated



Figure 8. Pryers Woodpecker (Noguchi Gera)

Natural Resources and Cultural Resources Management Plan designed to meet Department of Defense stewardship requirements and simultaneously support the military training mission. The plan was developed to maintain training areas through damage minimization, mitigation, and restoration; provide support and guidance to control wildfire threats in training areas; participate in regional ecosystem management initiatives and partnerships with local agencies; and provide environmental and cultural awareness education to III MEF units and tenant activities. We

recognize the importance of protecting the natural resources under our stewardship on Okinawa and completion of this study will greatly enhance our ability to train, and protect and conserve the environment.

HOST NATION RELATIONSHIP. The MCB Environmental Branch coordinated and hosted the first annual Japan Environmental Governing Standards (JEGS) seminar for Government of Japan officials. Because of our well-known working relationship with Government of Japan environmental agencies, U. S. Forces Japan (USFJ) tasked MCB Butler to develop and coordinate an environmental seminar for Japanese environmental officials. This seminar was developed to explain DoD environmental programs to federal, prefecture, and local Japanese Government agencies. Over 70 Japanese Government employees attended the seminar. We were the main point of contact for all DoD components in Japan.

The Commanding General for Marine Corps Bases Japan, General Hailston gave the opening remarks for the seminar, and acknowledged many of the high-ranking Japanese attendees. Our staff briefed the Japanese officials on "Environmental Compliance in Japan" which covered the Overseas Environmental Baseline Guidance Document (OEBGD), which was used in the formulation of the JEGS. We also presented an overview of the DoD Environmental Program in Okinawa. The seminar was well organized and exceeded USFJ goals of informing the Japanese Environmental Officials on the many things DoD is doing to protect the environmental in Japan. Local radio, TV, and print media, including the Armed Forces Radio and Television Service, covered the event.

TRAINING. MCB Butler understands the need for quality environmental training and was recognized by the U.S. EPA as a training provider. We are the only DoD overseas activity to obtain this recognition. We presently provide a 40-hour HAZWOPER course; 24-hour environmental compliance courses in both English and Japanese; and a 24-hour asbestos course. Plus we provide 8-hour refreshers courses in all these areas. Our training section works closely with our Human Resources Office and our Contracting Office to provide a wide variety of courses. We have training agreements with the University of California Berkeley for asbestos and lead-based paint training, the U. S. Coast Guard for spill response training, and with the U. S. Forest Service for natural resources and Geographic Information Systems (GIS) training. We have contracted with Texas A&M for oil spill training, and worked an agreement with Environment Canada to teach Chemistry for non-Chemists. In the last two years our Branch has trained over 1,200 active duty Marines and Sailors, U. S. and Japanese civilians, and Japanese Government employees. We have trained other service components within Japan and Korea at their request. We are continuing to develop new training courses and fulfill the needs of our customers.

SPECIAL ACHIEVEMENTS. In July, the Environmental Branch was tasked by MCB Butler to form a Weapons of Mass Destruction (WMD) team 5 days prior to President Clinton's visit to Okinawa for the G-8 summit. The Environmental Branch exercised their agreement with the US Coast Guard's National Strike Force for assistance with instrumentation and operating personnel for detecting potential WMD chemicals. The Coast Guard's National Strike Force sent five active duty personnel and over \$75,000 in instrumentation to augment MCB Butler's personnel. Within 4 days, a WMD team consisting of MCB Butler and Coast Guard personnel was formed, and with helicopter support from the 1st MAW, was ready to respond to any emergency any place on the island during the President's visit.

SUMMARY

MCB Butler has shown that with innovation and dedicated employees, environmental compliance and protection can be achieved in a highly cost effective manner. We have excelled at teaming up with other agencies and experts to rapidly develop a world-class environmental program. Other installations, both overseas and in the U.S. could use MCB Butler as a role model in developing working relationships with other agencies to improve their own environmental programs. Our successes in working with agencies outside our normal organizational chain can be used as a model to promote environmental leadership throughout the Department of Defense. We are dedicated to seeking better and less expensive ways to protect the environment and support the training needs of our operating forces. With our environmental programs, our Marines and Sailors are able to train to be the best in the world while preserving the environment for future generations.